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## Abstract

The present invention relates to the method for providing a service of multimedia message transfer through the mobile radio communications network, and in the text message transmitted through the mobile radio communications network, the multimedia message such as an image and voice message is transmitted with the selection icon etc. after inserting. In case the corresponding icon selectively is appointed in the received side mobile terminal, the video message or the voice message corresponding to that is transmitted and output to the received side mobile terminal. In that way it inserts readily the video message or the voice message to the icon shape and it transmits the subscriber equipped with the mobile phone of sender in the text message which oneself tries to transmit. The subscriber carrying the received side mobile terminal selectively appoints various shapes of icons indicated on the text message after inserting. It is the video message received to oneself or the very useful invention which confirms readily the acoustic image message or listened.



## Representative Drawing(s)

Fig. 4



## Keyword(s)

The mobile communications terminal, multimedia message, icon, voice message, video message, multimedia message management server.



## Description

### ■ Brief Explanation of the Drawing(s)

Fig. 1 schematically shows the omni configuration about the mobile radio communications network in which the method for providing a service of multimedia message transfer is applied to. Figure 2 shows the embodiment about the multimedia messaging information managed in the multimedia message management server with storage. Figure 3 shows the screen of the embodiment about the multimedia writing message at the mobile phone of sender. Figure 4 shows the operational flow chart about the method for providing a service of multimedia message transfer through the mobile radio communications network. Figure 5 shows the screen of the embodiment about the multimedia message receipt at the received side mobile terminal.

※ The description of reference numerals of the main elements in drawings.

101 ~ 10k: mobile communications terminal 111 ~ 11m: base station.

12: base station controller 13: mobile switching center.

14: home location register 15: multimedia message management server.

100: mobile radio communications network.

### ■ Details of the Invention

#### ■ Purpose of the Invention

#### • The Technical Field to which the Invention belongs and the Prior Art in that Field

The present invention relates to the method for providing a service of multimedia message transfer through the mobile radio communications network and the method for providing a service of multimedia message transfer through the mobile radio communications network which more circumstantially transmits the multimedia message such as an image and voice message in the text message after inserting.

Generally, a phone is the communications means which can send and can receive the message which it wants to deliver between the call party to the voice and is most generalized. It is classified into the mobile phone using the wired telephone, using the public switched telephone network (PSTN) and mobile network, for example, the mobile network of the code division multiple access (CDMA) mode. The mobile phone provides the portability in which a subscriber can communicate by telephone in the movement halfway.

In the meantime, recently, according to the power generation of the communications technology, in order to the next-generation mobile communications network providing the communications service and additional service of the high quality etc. various, and the next-generation mobile communications network which is commonly called to that is, the IMT 2000 (International Mobile Telecommunication for the 2000s) or the FPLMTS (Future Public Land Mobile Telecommunication System) in that is, the IMT 2000 (International Mobile Telecommunication for the 2000s) or the FPLMTS (Future Public Land Mobile Telecommunication System) be commercialized but 고속으로 send and receive the next generation mobile communications ingratitude, the voice, and the image or data files, data packet transmission mode is adopted.

Accordingly, in the mobile radio communications network as described above, data file including the high-capacity image as well as the normal voice call service offer, or the text etc. is used as data packet method. It 고속으로 transmits. The high quality communications service is provided. And the moreover various additional service is provided.

#### • The Technical Challenges of the Invention

Therefore, there can be the purpose it transmits after inserting, and in case the corresponding icon selectively is appointed in the received side mobile terminal, the video message or the voice message corresponding to that is transmitted to the received side mobile terminal as the selection icon the multimedia message, like the image in the text message, in which the present invention is created in consideration of the actual condition like above statement, and which is transmitted through the mobile radio communications network. Or the voice message etc.

#### ■ Structure & Operation of the Invention

The method for providing a service of multimedia message transfer through the mobile radio communications network according to the present invention for achieving the above described object are characterized that in case it is 1 step: discernment result which determines whether the message transmission-requested from the mobile phone of sender is the multimedia message in which the image or the voice message is included besides the text message or not, and the multimedia message, an image or the voice message stored by linkage in the image of the specific geometry which is selectively appointed from 2 step: and the received side mobile terminal transmitting the image representing the image or the voice message of a shape with the received side mobile terminal with text data is and reads searched. An image is made including 3 step transmitted with the received side mobile terminal.

Referring to the figure it circumstantially illustrates for below, and the preferred embodiment about the method for providing a service of multimedia message transfer through the mobile radio communications network.

Firstly, fig. 1 schematically shows the omni configuration about the mobile radio communications network in which the method for providing a service of multimedia message transfer is applied to. It is connected in the mobile radio communications network (100) through a plurality of base stations (111~11m): base stations including the wireless repeaters at the communications area in which a plurality of mobile communications terminals (101~10k) is positioned and communications line. It stores the base station controller (12): base station controller, controlling the relay operation at the base station the mobile switching center (13): mobile switching center (13), which is connected and treating an arc and exchanged the home location register (14): which is connected and which stores the present position information of the mobile communications terminals and provided and the multimedia message received between a plurality of mobile communications terminal

(101~10k) with the Song / and it manages. Along with this the image stored by linkage in the icon or the multimedia message management server (15) transmitting the voice message with read out is included and organized according to the icon choice which is shown on screen in the received side mobile terminal. The multimedia message management server (15) is into one body included and organized with the mobile switching center (13), or it can be connected to the separate addition service node in other words.

In the meantime, in the multimedia message management server (15), it links and saves and as shown in Figure 2, the serial number (ESN), of the received side mobile terminal receiving the multimedia message and icon IDs (Icon ID 1,2.),s received in the multimedia message transmitted from the mobile phone of sender with inclusion and image or voice message datas (Message Data1,2.) jointly received in the icon ID is managed with one multimedia messaging information as well as. The icon ID can be used as a calling and received side mobile terminal, and code number etc. And allocated between the multimedia message management server (15) based on the prior agreement the icon shape can be used as the unique image shape which can distinguish readily the type of each message including the voice message or the video message etc. with agreement.

That is, in case the subscriber equipped with the mobile phone of sender (101) prepares the normal text message and it inserts into the text message and as shown in Figure 3, the subscriber equipped with the mobile phone of sender (101) together tries to transmit the voice message or the video message in which oneself wants, the subscriber equipped with the mobile phone of sender (101) selects the arbitrary one icon of lots of the icons already stored in the memory (non illustration) of the mobile phone of sender (101). It records the voice message or the video message which is in accord with the icon shape or it takes a photograph. The subscriber equipped with the mobile phone of sender (101) transmits the text message, and icon shape and voice message or the video message through the mobile radio communications network.

For your reference, an plurality of icons already stored in the memory of the mobile communications terminal is same as those of next, it explains the process of transmitting the multimedia message corresponding to that with the received side mobile terminal (10k) the mobile communications terminal in manufacture, and a manufacturer selectively keep in store, or it can be stored in the memory through a series of procedure of being put through to the mobile radio communications network according to the subscriber selection and downloading icon data in other words, and the text message, which as described above, is transmission-requested from the mobile phone of sender (101) and icon shape and voice message or the video message are received.

Firstly, fig. 3 shows the operational flow chart about the method for providing a service of multimedia message transfer through the mobile radio communications network. In case it receives the message transmission request by the mobile switching center (13) from the mobile phone of sender (101) (S10), it confirms whether the transmission-requested message as described above is the multimedia message (S11).

That is, it confirms whether icon data in which the voice message or the video message is connected are included in the transmission-requested message. In case it is the confirmation result, and the general text message, it does with the general call processing (S12) after transmitting the corresponding message with the received side mobile terminal. In case it is the multimedia message in which the image or the voice message is received in the confirmation result, and the text message with inclusion, an interface with the multimedia message management server (15) is performed.

Accordingly, in the multimedia message management server (15), ID of icon data included in the multimedia message and image or voice message data which is message data jointly transmitted in the icon is read out (S13). The stuck out icon ID as described above and message data are linked and are saved with the serial number of the received side mobile terminal (S14). Therefore, it stores and as described above, an image or voice message data stored by linkage is managed with one multimedia messaging information as well as with reference to fig. 2 in the multimedia message management server (15) in the serial number (ESN), of the received side mobile terminal and icon ID, and icon ID.

In the meantime, in the multimedia message management server (15), the text message, transmission-requested to the received side mobile terminal (10k) and icon image, that is, icon data are

transmitted through an interface with the mobile switching center (13) (S15). The text message and corresponding icon are shown on screen through the liquid crystal display of the received side mobile terminal (10k). The text message, which the subscriber who accordingly carries the received side mobile terminal (10k) is received to oneself and one or more icon shape are confirmed. The shown on screen arbitrary one icon as described above is selectively clicked. As described above, in case an icon is selectively clicked, the icon ID receiving this and is selectively appointed is searched in the multimedia message management server (15) (S16).

And multimedia data stored by linkage in the icon ID is and reads searched. It transmits with the received side mobile terminal (S17).

For example, as shown in Figure 5, in case the icon which is shown on screen in the received side mobile terminal (10k) with the text message of the camera shape is selectively appointed, the icon ID # 2 (Icon ID 2) corresponding to the icon of the camera shape is searched in the multimedia message management server (15) in the serial number (ESN) of the received side mobile terminal among lots of the icon IDs stored by linkage. The video message data (V Message Data) stored by linkage in the icon ID #2 is and reads searched. It transmits with the received side mobile terminal (10k). Therefore, in conclusion, as shown in Figure 5, the video message is outputted and indicated in the liquid crystal display of the receiving side movable kidney terminal.

Therefore, in the text message which oneself tries to transmit, the subscriber equipped with the mobile phone of sender (101) inserts readily the video message or the voice message to the icon shape and the subscriber equipped with the mobile phone of sender (101) transmits. The subscriber carrying the received side mobile terminal selectively appoints the various icon which is indicated on the text message after inserting of a shape.

For your reference, the multimedia writing message at the mobile phone of sender (101) selectively appoints the various icon which is provided from the multimedia message management server (15) and it can prepare. And it selectively appoints an image and various audio data which is provided from the multimedia message management server (15) and it can prepare an image and the voice message jointly transmitted in moreover, the icon. Moreover, the icon shape can be shown on screen as the other shape which it selectively can click on the display screen.

The or more, and the above-described preferred embodiment of the present invention are disclosed for the object of example. An etc. of the part will be various another preferred embodiment possible in the technical mapping of the present invention and the technical scope disclosed in the patent claim which hereinafter is attached the person skilled in the art in the world.

#### ■ Effects of the Invention

As described above, in the text message transmitted through the mobile radio communications network, the method for providing a service of multimedia message transfer through the mobile radio communications network transmits the multimedia message such as an image and voice message with the selection icon etc. after inserting. In case it selectively appoints the corresponding icon in the received side mobile terminal, the video message or the voice message corresponding to that is transmitted and output to the received side mobile terminal. In that way it inserts readily the video message or the voice message to the icon shape and it transmits the subscriber equipped with the mobile phone of sender in the text message which oneself tries to transmit. The subscriber carrying the received side mobile terminal selectively appoints various shapes of icons indicated on the text message after inserting. It is the video message received to oneself or the very useful invention which confirms readily the acoustic image message or listened.



#### Scope of Claims

Claim 1 :

The method for providing a service of multimedia message transfer through the mobile radio communications network transmitted with the received side mobile terminal an image or the voice message stored by linkage in the image of the specific geometry which is selectively appointed from 2 step: and the received side mobile terminal transmitting the image representing the image or the voice message of a shape with the received side mobile terminal with text data is and reads searched it is 1 step: discernment result which determines the message transmission-requested from the mobile phone of sender is the multimedia message in which the image or the voice message is included besides the text message, and the multimedia message and which is made including 3 step.

Claim 2 :

The method for providing a service of multimedia message transfer through the mobile radio communications network of claim 1, wherein in 1 step, image data of the icon shape is received in a message with inclusion; and it determines as the multimedia message.

Claim 3 :

The method for providing a service of multimedia message transfer through the mobile radio communications network of claim 2, wherein 2 step transmits the image representing the image or the voice message of the icon shape with the received side mobile terminal.

Claim 4 :

The method for providing a service of multimedia message transfer through the image which is stored by linkage in the icon ID it searches the icon ID corresponding to the image of the specific geometry or the mobile radio communications network transmitting the voice message with read out of claim 2, wherein 3 step is selectively appointed with above statement.



Drawings

Fig. 1

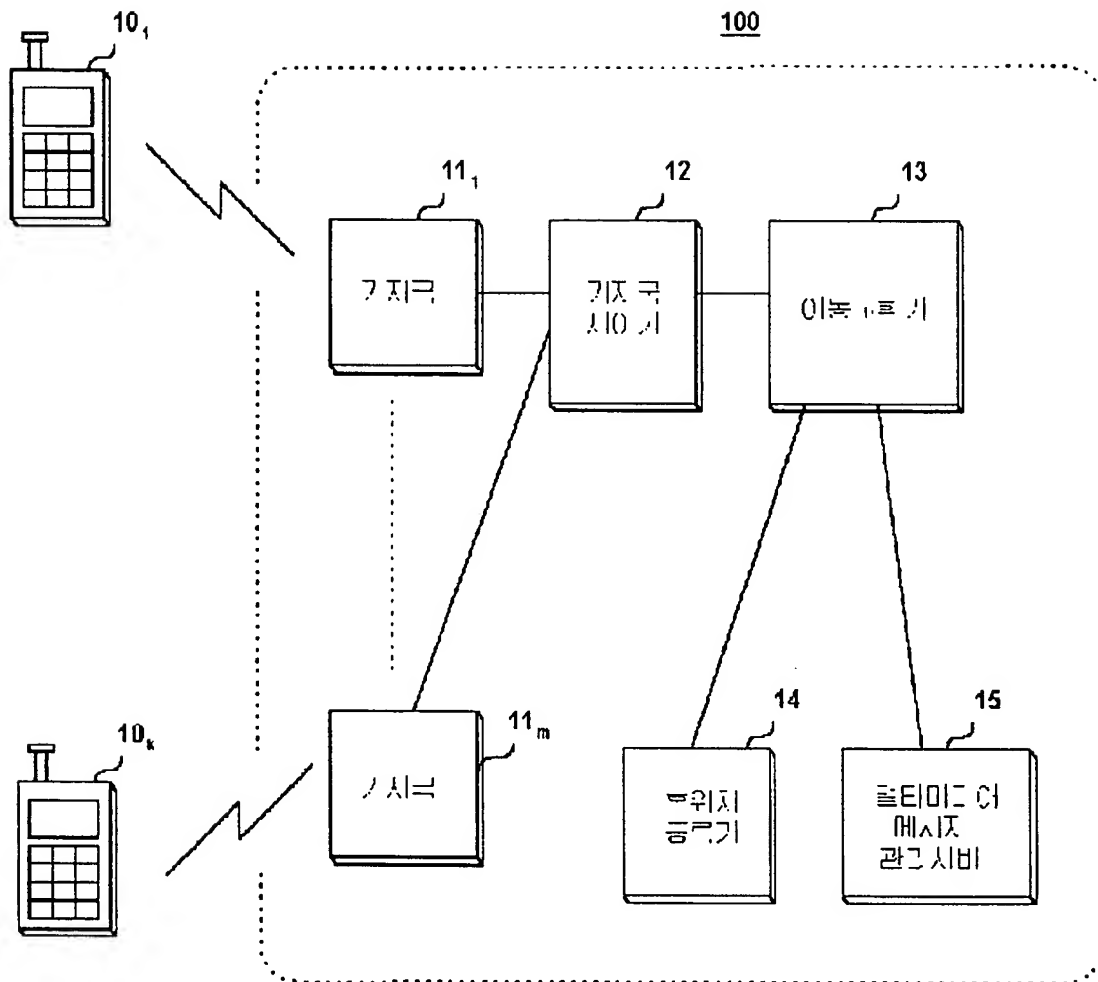


Fig. 2

별도 데이터 전송기

별도 데이터 전송기	수신 속 데이터 요청번호 (REQ)
	이전 데이터 # 1 (Term-1)
	데이터 데이터 # 1 (A_Message_Data)
	이전 데이터 # 2 (Term-2)
	데이터 데이터 # 2 (V_Message_Data)
	...
별도 데이터 전송기	수신 속 데이터 요청번호 (REQ)
	이전 데이터 # 1 (Term-1)
	데이터

Fig. 3



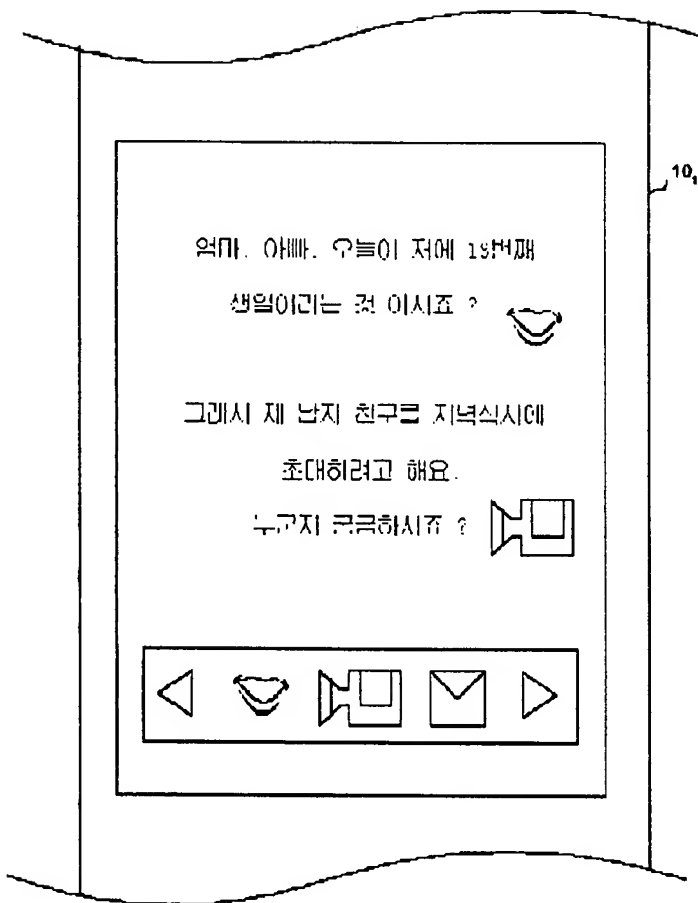


Fig. 4

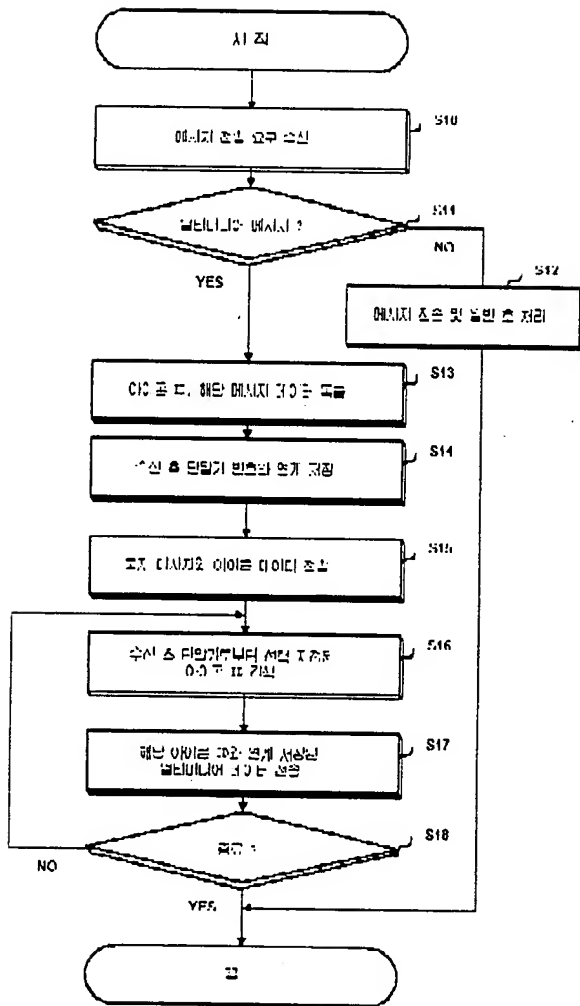


Fig. 5

